

CLAIMS

What is claimed and desired to be secured by Letters Patent is as follows:

1. A vehicle frame and body straightening jig comprising:
 - (a) an elongated longitudinal spine member having opposite ends;
 - (b) a plurality of support legs extending from said spine member to support said jig on a support surface;
 - (c) a frame connection device positioned on at least one of said legs to connect said jig to a vehicle frame; and
 - (d) a spider joint positioned at an end of said spine member, said spider joint including a plurality of receivers, each receiver adapted to enable connection of a pulling assembly to said receiver, said receivers being fixed in a selected radiating relation.
2. A jig as set forth in claim 1, including:
 - (a) a carriage assembly having ground engaging wheels.

3. A jig as set forth in claim 2, wherein said carriage assembly further includes:
 - (a) ground engaging casters connected to each of said ends of said spine member.
4. A jig as set forth in claim 1, including:
 - (a) a handle positioned at an end of said spine member.
5. A jig as set forth in claim 1, wherein:
 - (a) said support legs are pivotally coupled with said spine member to enable selective angular adjustment of said legs on said support surface and selective positioning of said legs to connect to a vehicle frame or body to be straightened.
6. A jig as set forth in claim 1, wherein:
 - (a) said support legs are pivotable to a folded position generally parallel and adjacent to said spine member.
7. A jig as set forth in claim 1, including:
 - (a) pivot plates connecting said support legs to said spine to enable pivoting and fixing said legs in a selected angular orientation with respect to said spine member.

8. A jig as set forth in claim 1, including:
 - (a) said frame connection device being adjustably connected with said leg for connecting said jig to a variety of vehicle frames.
9. A jig as set forth in claim 1, including:
 - (a) a center joint translatable along said spine, said center joint including a pair of receivers, each receiver adapted to enable connection of a pulling assembly to said receiver.
10. A jig as set forth in claim 1, including:
 - (a) a pair of center joints, each independently translatable along said spine, said joints each including a receiver adapted to enable connection of a pulling assembly to said receiver.
11. A jig as set forth in claim 1, wherein:
 - (a) said spider joint is positioned at one of said ends of said spine member; and
 - (b) a receiver positioned at another of said ends of said spine member, said receiver adapted to enable connection of a pulling assembly to said receiver.

12. A jig as set forth in claim 1, wherein:
- (a) said spider joint includes five evenly spaced joints radiating within an arc of 180°.
13. A jig as set forth in claim 1, wherein:
- (a) said pulling assemblies are hydraulically actuated.
14. A vehicle straightening jig comprising:
- (a) an elongated longitudinal spine member having opposite ends;
 - (b) a plurality of support legs extending from said spine member to support said jig on a support surface;
 - (c) a frame connection device positioned on at least one of said legs to connect said jig to a vehicle frame; and
 - (d) a joint positioned on said spine member, said joint including a plurality of receivers to receive at least two pulling assemblies on one side of the vehicle, each receiver adapted to enable connection of a pulling assembly to said receiver.

15. A vehicle straightening jig comprising: /
- (a) an elongated longitudinal spine member having first and second opposite ends, said first end including an end receiver;
 - (b) a center joint coupled with said spine, said center joint including a pair of intermediate receivers;
 - (c) a plurality of support legs extending from said spine member to support said jig on a support surface;
 - (d) a frame connection device positioned on at least one of said legs to connect said jig to a vehicle frame;
 - (e) a spider joint positioned at said first end of said spine member, said spider joint including five evenly spaced spider receivers in fixed radiating relation; and
 - (f) each of said receivers adapted to enable selective connection of a pulling assembly to said receiver for exerting a pulling force against said vehicle from eight discrete locations.
16. A jig as set forth in claim 15, including:
- (a) a carriage assembly having ground engaging wheels.

17. A jig as set forth in claim 15, wherein:
 - (a) said support legs are pivotally coupled with said spine member to enable selective lateral angular adjustment of said legs on said support surface and selective positioning of said legs to connect to a vehicle frame or body to be straightened.
18. A jig as set forth in claim 15, wherein:
 - (a) said support legs are pivotable to a folded position generally parallel and adjacent to said spine member.
19. A jig as set forth in claim 15, including:
 - (a) pivot plates connecting said support legs to said spine to enable pivoting and fixing said legs in a selected angular orientation with respect to said spine member.
20. A jig as set forth in claim 15, including:
 - (a) said frame connection device being adjustably connected with said leg for connecting said jig to a variety of vehicles.
21. A jig as set forth in claim 15, including:
 - (a) said intermediate receivers of said center joint each independently translatable along said spine.

22. A jig as set forth in claim 15, including:
- (a) said spider joint receivers radiating within an arc of 180°.
23. A portable vehicle straightening jig comprising: ✓
- (a) an elongated longitudinal spine member having first and second opposite ends;
 - (b) said first and second ends including a carriage assembly having ground engaging casters;
 - (c) a plurality of support legs extending from said spine member to support said jig on a support surface;
 - (d) pivot plates connecting said support legs to said spine member to enable pivoting and fixing said legs in a selected angular orientation with respect to said spine member;
 - (e) said pivot plates enabling pivoting of said support legs to a folded position generally parallel and adjacent to said spine member;
 - (f) a frame connection device adjustably connected to each one of said legs to connect said jig to a vehicle frame;
 - (g) a pair of center joints, each independently translatable along said spine, said joints each including an intermediate receiver adapted to enable selective connection of a pulling assembly to said intermediate receiver;

- (h) a spider joint positioned at said first end of said spine member, said spider joint including five evenly spaced receivers in fixed radiating relation within an arc of 180°, each receiver adapted to enable selective connection of a pulling assembly to said receiver; and
- (i) said second end of said spine member including an end receiver adapted to enable selective connection of a pulling assembly or a handle to said end receiver.